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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

BEFORE THE

Federal Communications Commission

WASHINGTON, D.C. 20554

In the Matter of	)	
	)	
Redevelopment of Spectrum to Encourage Innovation in the Use of New Telecommunications Technologies	)	ET Docket No. 92-9

COMMENTS OF SPECTRALINK CORPORATION

SpectraLink Corporation hereby submits its Comments in response to Commission's Notice of Proposed Rulemaking, FCC 92-20, released February 7, 1992, relating to the redevelopment of spectrum to encourage innovation in the use of new telecommunications technologies.

SpectraLink Corporation specializes in wireless business communications and has developed a wireless PBX/Centrex adjunct product which augments an organization's existing phone system with wireless phone extensions. The SpectraLink product uses microcell technology and spread spectrum radio transmission in the 902 to 928 MHz bandwidth and operates under Section 15.247 of the Commission's Rules.

SpectraLink has demonstrated that it is possible to develop, within the confines of existing available spectrum, a microcellular system which provides the capacity and coverage necessary to meet the needs of large businesses. In order to do this, SpectraLink has engineered a system which is spectrally efficient, with microcells and handsets that operate at power levels far below the 1 watt maximum mandated by Section 15.247 of the Commission's

rules. Because SpectraLink has already overcome many of the obstacles associated with in-building wireless technology, it can provide useful comments on the Commission's Notice of Proposed Rulemaking in ET Docket No. 92-9.

SpectraLink supports the Commission's proposal to allocate spectrum for the implementation of new technologies and services. SpectraLink agrees with the Commission's observations in paragraphs 6-8 of the NPRM regarding the need for an emerging technologies band. Such a "spectrum reserve" will provide incentives to manufacturers such as SpectraLink to continue developing new wireless telephony products. At the same time, it will serve the public interest in terms of speeding the introduction of new services by obviating the need for the Commission to go through a lengthy spectrum reallocation process each time a new service is introduced.

With respect to use of the emerging technologies band, SpectraLink notes that the Commission anticipates that at least part of this spectrum will be allocated for new Personal Communications Services (PCS). NPRM at para. 29. For the reasons explained below, SpectraLink urges the Commission to earmark a portion of this spectrum to a subset of PCS, namely, wireless in-building services.

Although SpectraLink has successfully created a product which operates in the 902 to 928 MHz band, SpectraLink views this band to be only a partial solution for in-building PCS services. Having first-hand experience in the wireless market, we have concluded that the demand for wireless business services will eventually be too great to be accommodated under the constraints of Part 15.

Under Section 15.247, spread-spectrum based products are relegated to tertiary use of the available bands. Based on the interest that we have seen, SpectraLink believes that wireless products such as wireless LANs, wireless PBXs or wireless key systems, will be of primary importance to business users. Without spectrum reallocation for these types of services, the demand for wireless data and telephony products will inevitably lead to more congestion in the Part 15 bands. Moreover, while SpectraLink has engineered a product which operates at under 100 milliwatts RF output, we are concerned that other Part 15 products which are introduced in the market will lack the sophistication to operate at such low power levels. In short, as more products are introduced into the Part 15 bands, the lack of interference protection for Part 15 users will inevitably lead to their disillusionment with wireless technology.

Thus, while SpectraLink has proven that it is technically possible to develop a spectrally efficient, low-powered product that uses available spectrum, the market for these types of products will be greatly curtailed unless the FCC creates an environment where systems can be deployed without significant risk of interference. In order to eliminate or at least minimize this risk, SpectraLink believes that the additional spectrum allocated for wireless indoor products should be made available not under Part 15, but under a new "Part 16" regulatory requirement.

In this connection, SpectraLink would like to go on record by stating it is in agreement with the position put forward by McCaw Cellular Communications Inc., at the December En Banc hearing that the Commission establish a distinct subset within PCS for private services (e.g., wireless PBXs and wireless local area networks) which cover a limited geographic area and have low interference potential.

Under a Part 16, these services would have a measure of interference protection that they do not have under Part 15, but would not necessarily be licensed (i.e., licensing would not be required for equipment that does not operate above a certain power level).

SpectraLink believes that the creation of a PCS subset for wireless services within a home, building or campus, will reduce the time needed to bring wireless technologies to market and to make them available on a widespread basis. Even with the allocation of sufficient spectrum for a public PCS, there are a number of obstacles which will need to be surmounted before users will see the benefits of such a service, including the development of a switching infrastructure which can handle the complexities of a ubiquitous wireless network. However, as SpectraLink has proven, products for wireless business service can be implemented today.

Moreover, SpectraLink has found that a strong market already exists in the business environment for in-building mobile communications. Based on initial prospecting, SpectraLink concurs with the Rolm Systems comments to the Commission that there is a pent-up demand in the business community for wireless communications technology. Many businesses have an immediate need for portable communications, and SpectraLink believes that it is unnecessary and impractical to have them wait for the implementation of a full public PCS, as most businesses will benefit more from a private network solution than a full public PCS.

As SpectraLink has already demonstrated, because a substantial investment already exists in existing communications systems, a PBX or Centrex adjunct product that adds wireless capabilities is a

cost-effective solution. This type of product also protects businesses against increased service charges for air-time and monthly usage, as all calls are routed through the existing phone system.

SpectraLink believes that, in the same way that a business employs a private branch exchange or Centrex service, businesses should also have the right to private wireless service within the air space of their building or campus. Charging air time or monthly usage fees for wireless phone service within a business environment, makes it economically impossible to put wireless communications tools into the hands of many workers. Attaching a premium to in-house cellular service rates would severely restrict its use in an organization and would diminish the market potential for mobile phone services for business use.

In conclusion, SpectraLink believes that it is in the best interest of businesses to delineate private PCS service from a public PCS network. Products can be brought to market more quickly, which will improve business competitiveness, and businesses will be able to preserve their investment in hardware, and their current competitive calling rates. We urge the Commission to set aside frequency for private PCS services, with adequate rules and regulations to insure its prudent use.

Respectfully submitted,
SPECTRALINK CORPORATION

By: _____
Thomas Ohlsson
Product Manager

1650 38th Street
Boulder, CO 80301
303/440-5330

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